Planning for Responsible Recreation, Stewardship, and Enjoyment

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OPEN SPACE AND MOUNTAIN PARKS
CITY OF BOULDER
OUTLINE

- City of Boulder, Open Space and Mountain Parks- overview
- Master Plan Engagement
- Master Plan Focus Areas - Overview
- Responsible Recreation, Stewardship, and Enjoyment
  - Supporting Enjoyable Recreation
  - Maintaining and Improving Trails and Visitor Facilities
  - Managing the Effects of Recreation
- Presentation Highlight
- Parking and Congestion Assessment & Toolkit
ENGAGEMENT-VALUES, HOPES, AND CONCERNS
FOCUS AREAS

- Ecosystem Health and Resilience
- Community Connections, Education, and Inclusion
- Agriculture Today and Tomorrow
- Financial Sustainability
- Responsible Recreation, Stewardship, and Enjoyment
RESPONSIBLE RECREATION, STEWARDSHIP, AND ENJOYMENT

A focus area of the Master Plan
Supporting Enjoyable Recreation
Maintaining and Improving Trails and Visitor Facilities
Managing the Effects of Recreation
PARKING AND CONGESTION ASSESSMENT AND TOOLKIT

Presentation Highlight
NPS CONGESTION MANAGEMENT PROCESS

1. Identify congestion problem(s)
2. Determine location(s), frequency & impacts of congestion

Do the congestion problem(s) need to be resolved?

YES

3. Consult the Toolkit to identify potential solution(s)
4. Analyze alternatives and select preferred solution(s)

Adaptive Management

NO

End Process

5. Implement solution(s)
6. Monitor solution(s) effectiveness
7. Revisit the Toolkit if congestion is not adequately resolved

www.nps.gov/transportation/pdfs/NPS-CMS_Toolkit.pdf
OBJECTIVES

• Identify perceived OSMP parking congestion problems

• Determine the perceived location(s), frequency, and impacts of congestion, and prioritize areas that need improvement.

• Develop a toolkit with a suite of potential solutions to the congestion problems (based on best practices research).

• Discuss data gaps and future data needs to further inform the assessment
Parking and Congestion Assessment & Toolkit

Resource & visitor experience monitoring data

CONTEXT

MASTER PLAN

Grasslands
Visitor Use + Experience
Agricultural Resources
Forests
Cultural Resources
Water

AREA PLANS
Site Plan
Site Plan
Site Plan

CAPITAL IMPROVEMENT PLAN + WORKPLANS
ASSESSMENT
OSMP PARKING SUMMARY

- 34 - 37 trailheads with off-street motor vehicle parking
- Approximately 900 parking spaces systemwide
  - 25 parking spaces per trailhead (average)
  - 7 to 56 parking spaces per trailhead
- 60% of parking spaces do not charge a fee
- Spaces distributed around network
TRANSPORTATION ARRIVAL MODE

<table>
<thead>
<tr>
<th>Mode</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>Car</td>
<td>56%</td>
</tr>
<tr>
<td>Walk</td>
<td>28%</td>
</tr>
<tr>
<td>Bike</td>
<td>9%</td>
</tr>
<tr>
<td>Run</td>
<td>6%</td>
</tr>
<tr>
<td>Bus</td>
<td>1%</td>
</tr>
<tr>
<td>Other</td>
<td>&lt;1%</td>
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</tbody>
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OSMP 2016-2017 Visitation Estimate and Survey
VISITOR PARKING DIFFICULTY

- System-wide (n=1,176): 6% difficult, 94% easy or neutral
- Chautauqua* (n=747): 32% difficult, 68% easy or neutral
- Sanitas Valley Trail (n=120): 19% difficult, 81% easy or neutral
- Flatirons Vista (n=21): 0% difficult, 100% easy or neutral

* OSMP 2016-2017 Visitor Survey
ARRIVAL MODE BY RESIDENCE

OSMP 2016-2017 Visitor Survey
TOOLKIT OF POSSIBLE SOLUTIONS
### Parking management

- Neighborhood Parking Permit Program (NPP)
- Paid parking for non-residents
- Paid parking for all residents
- Variable parking pricing based on demand
- On-line or mobile parking reservation system
- Parkmobile app for paid parking at trailheads
- Parking space sensors with interactive signage
- Reconfigure/redesign parking areas (curbs, signs, etc.)
- Resident parking cash out (at paid parking areas)
- Seasonal/temporary parking area increases
- Reduce parking at current trailheads
- Reconfigure/add new parking to new trails or trailheads
- Increased funding for enforcement
- Advance parking notification message boards
- Parking webcams to display current supply
- Carpool/Vanpool spaces
Transit

- Purchase RTD service to expand local routes to trailheads
- Seasonal shuttles that connect remote parking to trailheads
- Seasonal shuttles that connect to multiple trailheads
- Advertise Transportation Network Companies (TNC) trailheads
- Provide dedicated drop off/pick up areas for TNC
- Aerial gondola from major activity centers to trailheads
- Geofenced driverless vehicles downtown to trailheads
<table>
<thead>
<tr>
<th>Bicycle and walking access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traffic calming features within a mile of trailheads</td>
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<tr>
<td>Trailhead connections to the low-stress bike network</td>
</tr>
<tr>
<td>Sidewalks and crosswalks from new transit services</td>
</tr>
<tr>
<td>Increase totals and types of bicycle parking at trailheads</td>
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<tr>
<td>New B-cycle stations at trailheads with E-bikes</td>
</tr>
<tr>
<td>Mobile app based micromobility (shared scooters, bikes, etc)</td>
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<tr>
<td>Amend “no bikes” policies for trails that connect trailheads</td>
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<tr>
<td>E-bike sharing/charging/promotions TO trailheads</td>
</tr>
</tbody>
</table>
## Other tools

- Roadway access management (medians, curbs, and signs)
- Use management at trailheads on peak days
- Social media promotions on peak and off peak days
- Traffic management and enforcement plans for peak days
- Events, promotions, or use changes at cool spots
HOT SPOT AREAS
Parking is available at the Centennial Trailhead on the south side of Mapleton Avenue.

Current parking spaces: 31
Visitor data: 550 average daily visitors
INCREASED CROWDING AND CONGESTION - EXAMPLE BEST MANAGEMENT PRACTICES

Establish site specific desired conditions for visitor use and experiences in area (Planning)

Determine the appropriate kinds and amounts of use for trails in area (Visitor Capacity Analysis / Planning)

Apply congestion management tools (Implementation)
EXAMPLES OF CONGESTION MANAGEMENT TOOLS

- Neighborhood Parking Permit Program
- Variable parking pricing based on demand with Parkmobile app for all residents and non-residents
- Reconfigure parking areas
- Seasonal shuttles that connect remote parking
- Seasonal shuttles that connect to multiple trailheads
- Increase total types of bicycle parking at trailheads
Current parking spaces: 64
Visitor data: 1,000 average daily visitors
Establish site specific desired conditions for visitor use and experiences in area (Planning)

Determine the appropriate kinds and amounts of use for trails in area (Visitor Capacity Analysis / Planning)

Apply congestion management tools (Implementation)
EXAMPLES OF CURRENT TOOLS

- Neighborhood Parking Permit Program
- Paid Parking for non-residents
- Paid parking for all residents
- Parkmobile app for paid parking at trailheads
- Advance parking notification message boards
- Seasonal shuttles that connects remote parking
- Advertise Transportation Network Companies (TNC)
- Traffic calming features near neighborhood
- Trailhead connections to the low street bike network
- Traffic management and enforcement plans for peak days
EXAMPLES OF CONGESTION MANAGEMENT TOOLS

- Variable parking pricing based on demand
- Seasonal shuttles that connect to multiple trailheads
- Provide dedicated drop off/pick up areas for TNC
- Increase total types of bicycle parking at trailheads
LOOKING TO THE FUTURE-EXAMPLE APPROACH TO SUSTAINABLE TRANSPORTATION PLANNING

LOOKING TO THE FUTURE – EXAMPLE VISITOR USE MANAGEMENT STRATEGIES

Promote positive experiences

Understand visitor preferences
  Provide a variety of recreation opportunities
Provide education and outreach to enhance experiences
  Align visitor expectations with conditions at sites
  Provide clear wayfinding and messaging

Minimize resource and experiential impacts

Modify type of use at site
  Modify visitor behavior
  Modify the timing of use
  Modify the location of use
Increase the ability of sites to handle use
  Modify the spatial distribution of use
  Modify amount of use or increase the supply

Consider management actions such as three E’s

  Engineering
  Education
  Enforcement

For more examples, visit: https://visitorusemanagement.nps.gov/Home/About
Open Space and Mountain Parks, City of Boulder

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